

AMENDMENTS TO THE DRAWINGS

The attached sheet of drawings includes changes to FIG. 4. The sheet, which includes FIGS. 2-4 replaces the original sheet including FIGS. 2-4 and is labeled "Replacement Sheet". In amended FIG. 4, the designator lines 41 and 43 have been modified to point to the arrows in patterns 40 and 42, respectively, as indicated in the specification. No other changes to FIG. 4 (or any of the other drawings on the Replacement Sheet) have been made.

Appendix: Replacement Sheet for FIGS. 2-4
 Annotated Sheet showing changes made

REMARKS

In the Specification

In the specification, the specification has been amended to correct the informalities noted by the Examiner. Specifically, the Applicants have amended the paragraph beginning on page 1, line 5 and ending on page 1 line 7 and on page 1, line 9 and ending on page 1 line 22 to correct spelling errors (patter to pattern and patters to patterns). The attorney for the Applicants has performed a spell check on the application as submitted and believes these are the only occurrences of the above mentioned errors.

Furthermore, the attorney for the Applicants has inserted the term acronym for the Federal Aviation Administration “(FAA)” after the first occurrence of the term in the Background section (page 1, line 11). Furthermore, the attorney for the Applicants has inserted the definition of the term VOR after the first use of the term in the Detailed Description section (page 11, line 7) as indicated. Finally, the attorney for the Applicants has inserted the definition of the term ATC after the first use of the term in the Detailed Description section (page 6, line 3) as indicated.

In the Drawings

The Applicants have requested that FIG. 4 be amended to more precisely point out the elements indicated by designators 41 and 43. A copy of the proposed Replacement Sheet and annotated sheet showing the requested amendments is attached in the Appendix to this response

Claim Objections

The Examiner objected to claim 8 on grounds of clarity. The Applicants have requested that claim 8 be amended to address the Examiner’s concerns.

Claim Rejections

Rejections under 35 USC 103(a)

The Examiner rejected all pending claims (1-28) under 35 USC 103(a) as obvious in light of US Patent No. 4,274,204 to Self (hereinafter the ‘204 patent). The ‘204 patent discloses a aircraft traffic pattern device. The device comprises a frame wherein a

placard (referred to by the examiner as an entry determining element) that is slidably secured in the frame a compass rose moveably secured to the device. The placard has two sides, front and back, and two means representing an aircraft movement pattern about a reference point (see '204 patent, column 3 lines 39-41). The operation of the device is described in column 4, lines 11-40 of the '204 patent. As discussed the user is required to undertake several manipulations of the device to determine the correct maneuvers for entry into a landing pattern or a holding pattern. For example, the user must determine what maneuver is required to be performed and select the proper side of the placard for reference. Next the user must determine which of the means representing an aircraft movement about a reference point to use. The user must then align a reference line with an appropriate heading on the compass rose. Finally, the user must visually extract the required compass headings from the compass rose for use in the maneuver. Such maneuvers require considerable attention of the pilot.

The present disclosure describes a navigational assist system that is much simpler to use. The system comprises at least two entry determining elements that are moveably secured to one another so that the entry determining elements are rotatable with respect to one another (see amended claims 1 and 7). The device of the '204 patent fails to disclose this structure. The structure is important as it allows the pilot to view information relating to both holding patterns and runway traffic patterns without manipulating (such as flipping the device over) the system as required in the '204 patent. The system of the present disclosure provides a separate entry determining element for standard (right hand turns) and non-standard (left hand turns) entry into holding patterns and a single entry determining element for entry into both right and left runway traffic patterns. In this regard, the system of the present disclosure allows the pilot to see all of the entry determining elements at one time. The mounting of the entry determining elements so that they are rotatable to one another provides an advantage to the device of the present disclosure over that of the '204 patent.

Furthermore, the system of the present disclosure is designed to be used in conjunction with an appropriate navigational instrument on the aircraft. The pilot places the system on the faceplate of the navigational instrument and aligns the reference element on a given entry determining element with a directional heading associated with

an entry environment (such as a holding pattern or a runway traffic pattern). Through such an alignment, an initial position of the aircraft is established with respect to the entry environment and the advised course of action is displayed at the bottom of the entry determining element. Since the system of the present disclosure is attached to a navigational instrument on the aircraft (which the pilot will be regularly consulting during aircraft operation) the attention of the pilot is not diverted away from the aircraft and other hazards (such as other aircraft) in the vicinity while using the system of the present disclosure. The device of the '204 patent is not designed to be used in conjunction with a navigational instrument on the aircraft. Therefore, the pilot must divert attention away from the aircraft while using the device of the '204 patent.

The system of the present disclosure also provides the pilot with a recommendation with respect to the particular entry environment being approached (see examples 1-4). The system allows the initial position of the aircraft to be determined with respect to the entry environment. The entry determining elements are constructed and designed to comprise a number of entry determining sectors (with associated label) so that, based on the initial position of the aircraft, the proper entry determining sector is displayed at the bottom of the entry determining element allowing the pilot instant access to the required information regarding the entry environment. Such operation is clearly stated in claims 1 and 7. This operation is the result of the unique design of the system as specified in claim 1. The '204 patent fails to disclose either the unique construction of operation as set forth in the claims and specification of the instant application. The pilot is required only to align the reference element with a directional heading associated with the entry environment. Furthermore, as discussed above, since the system of the present disclosure is attached to a navigational instrument of the aircraft, the pilot's attention is not diverted from aircraft operation.

The '204 patent does not display the information regarding the entry environment in this manner. Using the '204 patent, the pilot receives a number of compass headings that are required for entry into the entry environment (as discussed above, the pilot must visually extract a multiplicity of information from the compass rose to determine the correct headings). The device of the '204 patent cannot display the information regarding the entry environment in this manner as the construction of the device prohibits such

display.

Conclusion

Therefore, the Applicants respectfully suggest that the '204 patent does not render any of claims 1-28 obvious. Applicants respectfully request that the requested amendments be entered and that a timely Notice of Allowance be issued in this case.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read 'TGP', with a stylized, sweeping flourish extending to the right.

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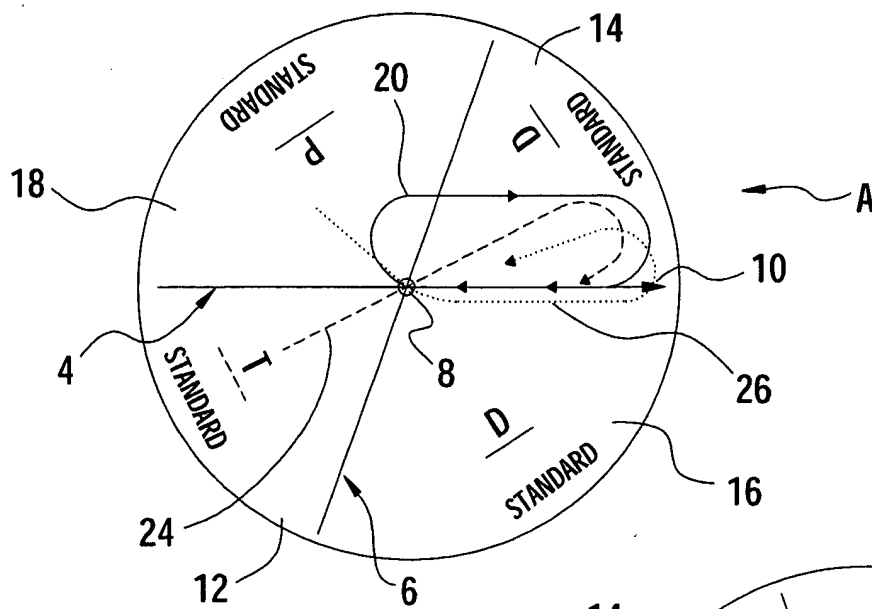


FIG. 2

FIG. 3

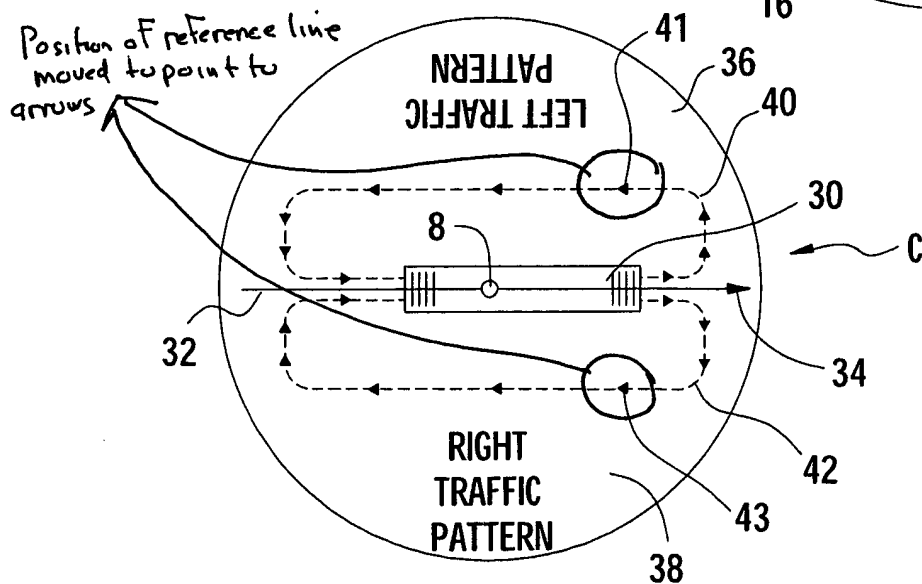
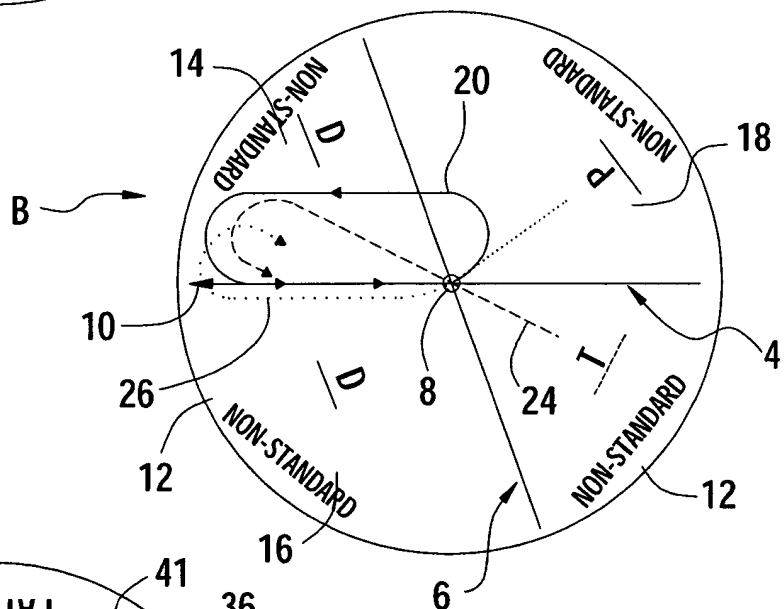


FIG. 4